General

Guideline Title

Medication management guideline.

Bibliographic Source(s)

Health Care Association of New Jersey (HCANJ). Medication management guideline. Hamilton (NJ): Health Care Association of New Jersey (HCANJ); 2012. 38 p. [53 references]

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Health Care Association of New Jersey (HCANJ). Medication management guideline. Hamilton (NJ): Health Care Association of New Jersey (HCANJ); 2007 Mar. 38 p.

Recommendations

Major Recommendations

See the original guideline document for definitions of key terms.

Risk Points and Risk Reduction Strategies

Note: A *Risk Point* is an identified stage of a process that has an elevated potential for the occurrence of an adverse medication event.

A. Risk Point: Admission, Transfer Orders, and Discharge to Home
    1. Admission from home: Reconcile proposed new orders with past medication usage.
        a. Review labels of all medication containers from home including over-the-counter medications and supplements.
        b. Review all community physician documentation available.
        c. Clarify any discrepancies or questionable orders with original source as necessary.
    2. Admissions/Transfers from Hospitals and Other Facilities: Reconcile
        a. Obtain and review copy of Medication Administration Records/Treatment Administration Records (MARs/TARs), transfer form, and Physician's Order Sheets (POS). Verify MAR/TAR information with transfer form and POS if available. Do not rely solely on transfer form.
        b. Clarify all medication orders with clinical staff from transferring hospital/facility when necessary.
        c. See item 5 below
    3. Readmissions:
        a. Compare transfer orders and information with previous medical record and clarify any discrepancies. Do not administer

previously ordered medications without a renewal order.

4. Consultant Initial Review:
    a. Initial orders faxed (fax original documents, not copies) to pharmacy consultant for timely review and written comments which are faxed back to the facility for inclusion in the medical record.
        1. Facility communicates the following information to the pharmacy consultant: resident's full name and date of birth, sex, weight, allergies, full medication orders, doses, diagnosis (indications for use) and laboratory reports.
5. Transfer Document: Reconcile
    a. Transfer forms will include printed, up-to-date medication orders with related diagnosis (indications for use) and relevant laboratory data.
        1. Inter-facility/program transfer form signed by physician
    b. Transfer form will include current and historic influenza and pneumonia vaccine information.
    c. Transfer documents will include up-to-date patient/resident care plan with physician's orders.
    d. Receiving facility/program nurse/physicians or pharmacists will review medications and immunization information with resident and/or knowledgeable and authorized resident representative to confirm accuracy of information.
        1. Ask family to bring at home medications, supplements, and over-the-counter (OTC) drugs to the facility to reconcile past medications usage with proposed, new orders.
    e. Receiving facility/program will clarify all medication orders by cross-checking medications shown on MAR, POS and Transfer Form. Contact the clinical staff of the transferring hospital/facility to clarify the orders as necessary.
    f. Reconcile proposed, new orders with past medication usage.
    g. Transfer protocol for intra-facility/program transfers will include a verbal communication of the resident's current physical and mental status, review of the medications and the care plan. Receiving nurse will document evidence of the clinical report.
6. Discharge to Home
    a. Reconcile medications: Prior to discharge to home, family will bring all at-home medications (including OTC and herbal substances) to the facility/program for the physician/nurse/pharmacist to review along with current medications. Discharge orders, prescriptions, and instructions to resident/family should clearly identify which medication should be continued at home.
        1. Send discharge medication and care plan information to community physician and/or home care program.
        2. Provider pharmacy sends resident/medication specific drug information document to facility.
            a. Facility gives drug information document to resident/family with list of medications to be taken at home. Educate resident and family about therapeutic benefits, side effects and adverse consequences.

B. Risk Point: Telephone Orders for Medication
    1. Except for telephone orders, verbal orders should not be accepted, except in emergencies
    2. Risk Reduction Strategies:
        a. Facility informs the prescriber of the following information:
            1. Resident's full name, age, sex and weight
            2. Diagnoses
            3. Drug and food allergies
            4. All prescribed current medications
            5. Recent signs and symptoms
            6. Recent laboratory data
        b. Read Back: receiving nurse will listen to prescriber, write down orders on appropriate document and read back the resident's full name and prescription orders as the nurse has written them. Prescriber will verbally verify accurate read back.
    3. Telephone orders are faxed (fax original document, not copy) to the prescriber for prescriber review, signature and timely return fax
        a. Prescriber will immediately telephone facility/program if faxed orders are incorrect and in need of adjustment.
    4. Educate staff to be watchful of sound-alike medications. Post facility-specific sample list at all nurses/medication stations. See current sample list of the Institute for Safe Medication Practices (ISMP) at www.ismp.org.

C. Risk Point: Written Orders for Medication
    1. Written orders include signed orders that may be handwritten, computer generated or faxed.
    2. Risk Reduction Strategies:
        a. Orders are entered on documents that identify the resident's complete first and last name.
        b. Orders are dated and timed as written.
        c. Orders include full name of medication, dose, route of administration, time(s) of administration, related diagnoses/indications for use, and duration.
        d. Avoid abbreviations. Alternatively, use the Institute for Safe Medication Practices (ISMP) guidelines at www.ismp.org

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e. Review and compare orders with the list of dangerous drug-to-drug interactions and high risk drugs.
f. Implement facility approved medication-specific laboratory monitoring protocols.
g. Implement facility-defined protocols for assuring accurate monthly review of orders and MAR/TARs.
h. Nurse and/or pharmacist will note all illegible, incomplete or otherwise questionable orders and immediately seek clarification from the prescriber before transcribing or dispensing the medication orders.
i. Educate staff to be watchful of look-alike medications. Post facility-specific list at all nurses/medication stations. See sample list of ISMP at www.ismp.org .
j. Fax original documents, not copies.

D. Risk Point: Transcription of Orders for Medication
1. Transcription of orders means nurses or other authorized staff write the orders on the MAR or TAR.
2. Risk Reduction Strategies:
a. Nurse/authorized designated transcriber enters the complete order onto the MAR/TAR with the prescriber's order sheet in view of and adjacent to the MAR/TAR. Leave a blank space between each medication order.
1. Second nurse/authorized transcriber reviews the order transcription by verifying that the information in the MAR/TAR is the same as the order. Note: Facility/program protocols should specify the process for the transcribing and verifying staff to sign or initial the order sheet and the MAR/TAR to establish the identity of who completed the transcription and verification process.
3. Facility/program protocols may include a process for a designated staff person to review all orders for the previous 24 hour period, and confirm that all orders were accurately transcribed.
4. Consult facility/program's "like names alert" policy to assure correct resident's name.

E. Risk Point: Provider Pharmacy Receipt of Medication Orders
1. Risk Reduction Strategies:
a. Information shared with the provider pharmacy will include resident's full name, age or date of birth, sex, weight, allergies, diagnoses (indications for use), and pertinent laboratory reports.
b. Complete, legible medication orders include the resident's full name, date, drug, dose, route times of administration, and duration.
c. Provider pharmacy establishes resident-specific medication regimen.
1. Assess for drug interaction and otherwise review appropriateness of the medication regimen.
2. Immediately notify prescriber and facility if potential drug interaction or the potential for harm from medications is identified.

F. Risk Point: Provider Pharmacy Dispensing of Medication
1. Risk Reduction Strategies:
a. Provide precautionary instructions and parameters for use on medication label and/or MAR/TAR.
b. Provide individual medication information sheet with therapeutic use, side effects and adverse consequences.
c. Package medication in a manner to promote a safe and efficient medication administration system.
d. When generating Physician Order Sheets (POS), include all facility approved, medication-specific protocols for laboratory reports and other clinical measurements.
e. Comply with established facility protocols for timely, safe delivery and receipt of medication.

G. Risk Point: Receipt of Medications at Facility/Program
1. Risk Reduction Strategies:
a. Match all medications with corresponding records.
b. Properly safeguard medications. Place in proper location, such as locked cart, locked room, medication refrigerator, and controlled drug inventory area.

H. Risk Point: Provider Pharmacy Restocking of Medication
1. Risk Reduction Strategies:
a. Licensed pharmacist to verify correct name and dose of returned medications.
b. Two (2) staff members will verify correct container for each medication and will complete accurate restocking process.

I. Risk Point: Medication Administration
1. RIGHT Patient, RIGHT Medication, RIGHT Dose, RIGHT Route, RIGHT Time, RIGHT Documentation

2. Risk Reduction Strategies:
    a. Strict compliance with established protocols, including:
        1. New medication order – *First Dose*:
            a. Check POS to confirm accuracy of MAR/TAR before administering first dose.
            b. Read and compare MAR/TAR and medication labels three (3) times:
                i. Initial view
                ii. At pouring
                iii. After pouring
    b. Use two (2) forms of resident identification, including:
        1. What is your name?
        2. ID bracelet
        3. Photo (update photo annually)
        4. Staff verification
        5. Follow "like names alert" policy to avoid similar resident's name errors.
           Note: Do not use room or bed number

    c. Observe for expected therapeutic effects, side effects, and adverse consequences. Communicate side effects and adverse consequences to supervisor and prescriber.
        1. May "hold" medication in accordance with professional standards.
    d. Follow precautions and assess and record clinical parameters.
        1. Administer and observe as resident takes medication.
        2. Document the process.
    e. Follow appropriate infection control standards.

J. Risk Point: Monitoring Therapeutic Benefits and Adverse Consequences of Medication
    1. Risk Reduction Strategies:
        a. Consult readily available medication information reference sources that may include:
            1. Current Physician's Desk Reference (PDR)
            2. Current drug handbook
            3. Computer information system
            4. Pharmacy provided information sheets
            5. ISMP (Institute for Safe Medication Processes)
            6. Beers Criteria/Beers list
            7. Other references
        b. Off label use of antipsychotic medications with goal of 15% reduction
        c. Increased education and use of non-pharmaceutical interventions
        d. Advise prescriber of identified adverse consequences or failure to obtain therapeutic benefits.
        e. Follow facility protocols for high risk medications and laboratory monitoring.
        f. Follow facility protocols for avoiding potentially dangerous drug-to-drug and drug/food interactions.
        g. Identify resident-specific non-pharmacologic interventions (behavioral) that are considered and used instead of, or in addition to, psychotherapeutic medications.
        h. Whenever there are changes in the resident's mental or physical functional status, "Think Medications." Clinical team will evaluate medication regimen as a potential contributing factor and revise medication orders as appropriate.

K. Risk Point: Stock, Back-Up Box, and Emergency Box Medications
    1. Risk Reduction Strategies:
        a. Facility identifies specific contents and protocols for use.
            1. Review and revise contents at least annually.
    2. Monthly monitor stock levels and expiration dates and restock as necessary.

L. Risk Point: Resident Self-Administration of Medication
    1. Carefully assess capacity of resident to safely store and self-administer medication
        a. Reassess resident capacity to self-administer at least quarterly.
    2. Educate resident regarding the following:
        a. Indications for use and expected benefits.
        b. Method of administration.

c. Side effects and adverse consequences.
3. Provide for proper storage.
4. Staff will monitor and record indications of therapeutic benefits, side effects and adverse events, and keep prescriber informed.

M. Risk Point: Resident/Family Brings Medications from Home
1. Risk Reduction Strategies:
a. Limit medications from home brought to facility.
b. Educate residents and families about facility policy on medications from home.
1. Include policy in admissions agreement.
c. Require that medications from home be properly labeled and packaged, including physician provided samples.

Quality Improvement (Q.I.) Process Addresses the Following:

A. Assurance of written protocols for pharmacy and medication systems.
1. System to include accountability of prescriber, facility staff, pharmacy provider and pharmacy consultant.
2. Protocols to include methods to evaluate competency of staff, identification of learning needs, and the provision of appropriate education to establish and maintain staff competency.

B. Protocols for identification, reporting and analysis of adverse medication events and "near misses."
1. Analysis of Adverse Drug Reactions (ADR) to include probability, preventability and severity.
2. Medication errors are placed in categories to facilitate analysis.
3. Conduct root cause analysis of errors. Review and revise policies, procedures and protocols to reduce or eliminate likelihood of similar errors.

C. Implementation by Medical Director of defined protocols to monitor prescribing patterns of the medical staff and medical staff education and/or other corrective actions as appropriate.
1. Provider pharmacy produces summary reports of patterns of prescribing for each member of the medical staff.
2. Medication order checklist audit tool.

D. Protocols for consultant pharmacist to observe medication administration of newly-employed staff authorized to administer medication and to periodically observe staff on all shifts.
1. Conduct an analysis of observations, review medication administration policies and procedures and identify and implement corrective measures as indicated.

E. Define process for analysis of available information and selective changes in policy, procedures, protocols and education intended to address identified opportunities to improve quality, including controlled drug procedures.
F. Frequent review and careful monitoring of anti-coagulation therapy and other medication-related laboratory test monitoring protocols.
G. Maintain confidential documentation of Q.I. monitoring, reviews, analysis, conclusions and modifications in policies, procedures and protocols.

Education

Facilities/programs will develop education program content specific to their policies, procedures and protocols. Staff includes those who transcribe, administer and monitor medication.

A. Staff Education
1. Orientation.
2. Periodic reviews and updates.
3. Re-education following changes in policies, procedures and protocols.
4. Readily available, current drug reference text and/or PDR.

B. Resident/Family Education
1. Upon admission.
2. On-going as indicated.
3. Self-medication information.
4. Upon planned discharge.

C. Prescriber Education

1. Upon joining, medical "personnel" or otherwise approved attending or consulting prescriber status.
2. Periodic reviews and updates, including issues identified by consultant and provider pharmacists.
3. Re-education following changes in policies, procedures and protocols.

D. Education Process
    1. Education may occur as one-on-one, on-site or off-site training, via internet learning or self-study.
    2. Readjust education plans in response to opportunities to improve as identified through the Q.I. Process.
    3. Maintain all education records including topics and attendance.
        a. Individual employee education record will include date, duration and topic.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

- Medical conditions requiring pharmacological management
- Adverse drug reactions and adverse medication events

Note: This guideline *does not* include information about the clinically appropriate use of specific medications. It is not intended to be used as a resident-specific or medication-specific guideline.

Guideline Category

Counseling

Evaluation

Management

Prevention

Risk Assessment

Clinical Specialty

Family Practice

Geriatrics

Internal Medicine

Nursing

Pharmacology

Preventive Medicine

Intended Users

Advanced Practice Nurses

Allied Health Personnel

Health Care Providers

Hospitals

Managed Care Organizations

Nurses

Pharmacists

Physician Assistants

Physicians

Utilization Management

Guideline Objective(s)

- To assist health care providers with the development and implementation of systems and strategies that the Committee believes will reduce medication errors and promote best patient/resident outcomes in health care facilities
- To provide information, tools and systems intended to:
  - Reduce the incidence of medication errors in health care facilities
  - Improve the quality of care and quality of life for adults living or convalescing in health care facilities
  - Outline strategies for prescribing, dispensing, delivering, storing, administering and monitoring medications
    - Guidelines for psychotropic drug reduction
    - Guidelines for opioid use (Wash and Utah)
  - Reduce risk and professional liability

Note: The term "resident" refers to all of the following: "patient," "resident," "client," "participant."

Target Population

Adult patients/residents in health care facilities and programs, including:

- Sub-acute care facilities
- Comprehensive personal care homes
- Skilled nursing facilities
- Assisted living programs
- Nursing facilities
- Residential health care facilities
- Assisted living facilities
- Adult day health facilities
- Hospice programs

Interventions and Practices Considered

Risk Assessment/Management

1. Medication risk reduction strategies at the following risk points:
   - Admission, transfer orders, and discharge to home
   - Telephone orders
   - Written orders
   - Transcription of orders
   - Provider pharmacy receipt of medication orders

- Provider pharmacy dispensing of medication
- Receipt of medications at facility/program
- Provider pharmacy restocking of medication
- Medication administration
- Monitoring therapeutic benefits and adverse consequences of medications
- Stock, back-up box, and emergency box medications
- Resident self-administration of medication risk reduction strategies
- Resident/family brings medications from home

2. Quality improvement process
    - Assurance of written protocols for pharmacy and medication systems
    - Protocols for identification, reporting, and analysis of adverse medication events and "near misses"
    - Implementation by medical director of defined protocols to monitor prescribing patterns
    - Protocols for consultant pharmacist to observe medication administration
    - Define process for analysis of available information and selective changes in policy, procedures, protocols and education
    - Frequent review
    - Maintain confidential documentation
3. Education
    - Staff
    - Resident/family
    - Prescriber
    - Define process

Major Outcomes Considered

- Medication error rate
- Adverse consequence rate
- Adverse drug reaction rate
- Adverse medication events
- Medication interactions

Methodology

Methods Used to Collect/Select the Evidence

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Databases searched included Agency for Healthcare Research and Quality (AHRQ); Centers for Disease Control and Prevention (CDC); Institute For Safe Medication Practices (ISMP); Connecticut and Iowa Health Department Sites; Center for Excellence in Assisted Living (CEAL); Agency for Health Care Administration Psychotropic Drug Reduction Initiative. Date range of literature searches: 2008-2012.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Expert Consensus

Rating Scheme for the Strength of the Evidence

Not applicable

Methods Used to Analyze the Evidence

Review

Description of the Methods Used to Analyze the Evidence

Not stated

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

This Best Practice Guideline was developed by the Health Care Association of New Jersey (HCANJ) Best Practice Committee ("Committee"), a group of volunteer professionals actively working in or on behalf of health care facilities in New Jersey, including skilled nursing facilities, sub-acute care and assisted living providers.

The Committee's development process included a review of government regulations, literature review, expert opinions, and consensus. The Committee strives to develop guidelines that are consistent with these principles:

- Relative simplicity
- Ease of implementation
- Evidence-based criteria
- Inclusion of suggested, appropriate forms
- Application to various long term care settings
- Consistent with statutory and regulatory requirements
- Utilization of minimum data set (MDS) resident assessment instrument (RAI) terminology, definitions and data collection

Rating Scheme for the Strength of the Recommendations

Not applicable

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Not stated

Description of Method of Guideline Validation

Not applicable

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of evidence supporting the recommendations is not specifically stated.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

- Reduction in incidence of medication errors
- Improved quality of care
- Improved quality of life
- Reduction of risk and professional liability

Potential Harms

- Drug interactions (see the "Dangerous Drug Interactions in Long Term Care" chart in the original guideline document)
- Extrapyramidal Symptoms (EPS) are neurological side effects that can occur at any time from the first few days of treatment to years later. EPS includes various syndromes such as:
  - *Akathisia*: A distressing feeling of internal restlessness that may appear as constant motion, the inability to sit still, fidgeting, pacing, or rocking.
  - *Medication-induced Parkinsonism*: A syndrome of Parkinson-like symptoms including tremors, shuffling gait, slowness of movement, expressionless face, drooling, postural unsteadiness and rigidity of muscles in the limbs, neck and trunk.
  - *Dystonia*: An acute, painful, spastic contraction of muscle groups (commonly the neck, eyes and trunk) that often occurs soon after initiating treatment and is more common in younger individuals.

Qualifying Statements

Qualifying Statements

- This Guideline *does not* include information about the clinically appropriate use of specific medications. It is not intended to be used as a resident-specific or medication-specific guideline.
- This Best Practice Guideline is presented as a model only by way of illustration. It has not been reviewed by counsel. Before applying a particular form to a specific use by your organization, it should be reviewed by counsel knowledgeable concerning applicable federal and state health care laws and rules and regulations. This Best Practice Guideline should not be used or relied upon in any way without consultation with and supervision by qualified physicians and other healthcare professionals who have full knowledge of each particular resident's case history and medical condition.
- This Best Practice Guidelines is offered to nursing facilities, assisted living communities, residential health care facilities, adult day health services providers and other professionals for informational and educational purposes only.
- The Health Care Association of New Jersey (HCANJ), its executers, administrators, successors, and members hereby disclaim any and all liability for damage of whatever kind resulting from the use, negligent or otherwise, of all Best Practice Guidelines herein.
- The Best Practice Guidelines usually assume that recovery/rehabilitation is the treatment or care plan goal. Sometimes, other goals may be appropriate. For example, for patients receiving palliative care, promotion of comfort (pain control) and dignity may take precedence over other guideline objectives. Guidelines may need modification to best address each facility, patient and family's expectations and preferences.

Implementation of the Guideline

Description of Implementation Strategy

Suggested implementation strategies are discussed in the original guideline document sections titled "Quality Improvement Process Addresses the Following" and "Education". Refer to the "Major Recommendations" field for more information on these topics.

Appropriate staff (Management, Medical Director, Physicians, Nurse-Managers, Pharmacists, Pharmacy Consultants, Interdisciplinary Care Team) at each facility/program should develop specific policies, procedures and protocols to best assure the efficient, implementation of the Best Practice Guideline's principles.

Recognizing the importance of implementation of appropriate guidelines, the Committee plans to offer education and training. The Health Care Association of New Jersey (HCANJ) Best Practice Guidelines will be made available at www.hcanj.org.

Implementation Tools

Chart Documentation/Checklists/Forms

Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Safety

Identifying Information and Availability

Bibliographic Source(s)

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Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2006 Apr (revised 2012)

Guideline Developer(s)

Health Care Association of New Jersey - Nonprofit Organization

Source(s) of Funding

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Guideline Committee

Best Practice Committee

Composition of Group That Authored the Guideline

Not stated

Financial Disclosures/Conflicts of Interest

Not stated

Guideline Status

This is the current release of the guideline.

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Guideline Availability

Electronic copies: Available in Portable Document Format (PDF) from the Health Care Association of New Jersey Web site .

Print copies: Available from the Health Care Association of New Jersey, 4 AAA Drive, Suite 203, Hamilton, New Jersey 08691-1803.

Availability of Companion Documents

The following implementation tools are available in the original guideline document :

- Medication Reconciliation Form
- Medication Occurrence/Error Report
- Provider Pharmacy Report
- Medication Occurrence/Error Tracking Checklist
- Medication Order/Prescription Tracking Checklist
- Medication Administration Monitoring Form
- Dangerous Drug Interactions In Long Term Care
- Medication Related Laboratory Test Monitoring Policy (Sample Guideline)
- ADR Classifications—Naranjo's Algorithm
- Related Internet Sites

Print copies: Available from the Health Care Association of New Jersey, 4 AAA Drive, Suite 203, Hamilton, New Jersey 08691-1803

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI on August 14, 2006. The information was verified by the guideline developer on April 10, 2009. This NGC summary was updated by ECRI Institute on July 6, 2009. This NGC summary was updated by ECRI Institute on March 4, 2013. The updated information was verified by the guideline developer on March 29, 2013.

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